

## **REMARKS**

### ***Summary of Office Action***

The Examiner objected to the amendment to the specification, alleging that the amendment violated 35 U.S.C. § 132(a) for introducing new matter. The Examiner also rejected Claims 7, 28, 45, and 48 under 35 U.S.C. § 112, first paragraph, for failing to comply with the written description requirement. Further, the Examiner rejected Claims 1-21 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicants regard as the invention.

In regard to the substantive examination, the Examiner rejected Claims 1-6, 8-27, 29-44, 46, and 47 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,267,953 issued to Bernier et al. (hereinafter "Bernier") in view of an article in Chemoecology written by Braks et al. (hereinafter "Braks").

### ***Summary of Amendment***

Upon entry of the present Supplemental Response to Office Action, the specification and Claims 1-6, 8, 19, 20, 22, 40, 41, 43, and 46 will have been amended. Furthermore, Claims 7, 28, 45, and 48 will have been cancelled. As such, Claims 1-6, 8-27, 29-44, 46, and 47 remain currently pending. By the present amendments and Remarks, Applicants submit that the rejections have been overcome and respectfully request reconsideration of the outstanding Office Action.

### ***Applicants' Response***

#### **1. Objection to the Specification**

The Examiner contends that the amendments to paragraphs [0014] and [0026] to change the group  $R_2$  to  $R_{12}$  in the structural diagram adds new matter and that the variable  $R_{12}$  was not disclosed in the specification as filed. *Final Office Action, Page 2.*

Although Applicants disagree with the Examiner's view that the change from  $R_2$  to  $R_{12}$  constitutes the addition of new matter, Applicants have hereby amended paragraphs [0014] and [0026] to recite the originally filed  $R_2$ , rather than  $R_{12}$ . As such, Applicants

respectfully submit that the objection to the specification has been overcome and should now be withdrawn.

2. Section 112, First Paragraph, Rejection of Claims 7, 28, 45, and 48

The Examiner asserts that the claims have been amended to include compounds that were not contemplated in the specification as filed and therefore the amended claims contain new matter. *Final Office Action, Pages 2-3*. The Examiner asserts that changing the  $R_2$  variable to  $R_{12}$  has added new matter. *Id. at 3*. The Examiner contends that the mistake of a chemical name is an obvious error that may be overcome without adding new matter while a mistake in a variable number is not an obvious error that may be overcome without adding new matter. *Id.* The Examiner further submits that, “newly added claim limitations must be supported in the specification through express, implicit or inherent disclosure.” *Id.* (emphasis added). Finally, the Examiner contends that one could interpret the  $R_2$  variable to have the meaning set forth in Claim 6. *Id. at 3-4*.

Again, Applicants disagree with the Examiner’s view that the change from  $R_2$  to  $R_{12}$  in these claims constitutes the addition of new matter. However, in order to continue with prosecution and to secure other allowable subject matter, Applicants hereby cancel Claims 7, 28, 45, and 48. Applicants respectfully submit that with the present cancellation, the § 112, first paragraph, rejection has been rendered moot and should now be withdrawn.

3. Section 112, Second Paragraph, Rejection of Claims 1-21

The Examiner submits that the limitation “lipid based media” in Claims 1-8 and 20 lack sufficient antecedent basis since Claim 1 was amended to recite having an “artificial lipid based media.” *Final Office Action, Page 4*.

Claims 1-8 and 20 have currently been amended to recite, “artificial lipid based media.” As such, Applicants respectfully submit that this rejection has been overcome and as such this rejection should now be withdrawn.

4. Section 103(a) Rejection of Claims 1-6, 8-27, 29-44, 46, and 47

The Examiner asserts that Bernier provides motivation to modify its disclosed synergistic mixtures with compounds obtained from skin or hair washings in order to enhance the synergistic mixture. *Final Office Action, Page 5.*

Applicants' independent Claim 1 as currently amended recites, inter alia, "...providing an artificial lipid based media that is not attractive to arthropods which are parasitic to a vertebrate host ... combining the artificial lipid based media and the microorganisms..."

The Bernier et al. patent is directed toward a chemical composition that attracts arthropods, wherein the composition contains one or more carboxylic acids selected from a specific formula I mixed with one or more compounds selected from a specific group II. *Column 20, lines 10-18.* The Examiner cites language from Bernier discussing that, "*The efficacy of the compositions of the present invention in attracting arthropods, may be further enhanced by adding one or more of the chemical compositions of skin washing or hair washings as disclosed in Bernier, Ph.D. dissertation...,*" (*Column 20, lines 1-4*) and that, "*the efficacy of the compositions of the present invention in attracting arthropods, may be further enhanced by adding one or more of light, heat and moisture.*" (*Column 20, lines 7-9*). The Examiner, however, may have overlooked the import of the following passage also explicitly stated in the Bernier patent, i.e., "*it is appreciated that those skilled in the art recognize that the compositions of the present invention include one or [more] compounds of the formula I and one or more compounds of group II compounds.*" *Column 20, lines 10-13* (emphasis added).

Thus, it can be seen that even if Bernier teaches or suggests adding skin washings, it still requires the base of a carboxylic acid of formula I and at least one particular compound selected from the recited group II. In other words, Bernier's invention may be enhanced by adding skin washings to its synergistic blend of compounds; however, the synergistic blend of compounds from formula I and group II are still required.

Because Applicants' independent Claim 1 does not require compounds from both Bernier's formula I and group II, the combination of Bernier and Braks cannot teach or

suggest all of the elements as recited in Applicants' independent Claim 1. Further, neither Bernier nor Braks teach or suggest using an artificial lipid based media that is not attractive to arthropods which are parasitic to a vertebrate host in combination with microorganisms. As such, Applicants submit that it would not have been obvious at the time the claimed invention was made to take the teachings of the Bernier et al. patent and the Braks et al. reference and modify them so as to reach the above-noted features of the present invention, and thus, the rejection of at least independent Claim 1 under 35 U.S.C. § 103(a) is improper and should be withdrawn.

Applicants further submit that Claims 2-6 and 8-19 are allowable for the reason that these claims depend on allowable independent Claim 1 and because these claims recite additional features that further define the present invention.

Applicants further submit that independent Claim 20 likewise contains language reciting, inter alia, "...*providing an artificial lipid based media that is not attractive to arthropods which are parasitic to a vertebrate host ... combining the artificial lipid based media and the microorganisms...*"

For the reasons discussed above in relation to independent Claim 1, because Bernier requires a synergistic blend of a formula I compound and a group II compound, and because neither Bernier nor Braks teach or suggest using an artificial lipid based media that is not attractive to arthropods which are parasitic to a vertebrate host in combination with microorganisms, Applicants' independent Claim 20 has not been shown to be obvious in light of the cited prior art references.

Applicants respectfully submit that, thus, the rejection of at least independent Claim 20 under 35 U.S.C. § 103(a) is improper and should be withdrawn along with the rejection of dependent Claim 21.

Applicants also submit that independent Claim 22 likewise contains similar language reciting, inter alia, "...*providing an artificial lipid based media that is not attractive to arthropods which are parasitic to a vertebrate host ... combining the artificial lipid based media and the enzymes...*"

For the reasons discussed above in relation to independent Claim 1, since Bernier requires a synergistic blend of a formula I compound and a group II compound and because neither Bernier nor Braks teach or suggest using an artificial lipid based media that is not attractive to arthropods which are parasitic to a vertebrate host in combination with enzymes, Applicants' independent Claim 22 has not been shown to be obvious in light of the cited prior art references. Furthermore, Applicants' independent Claim 22, as currently amended, also recites, "*...the enzymes being isolated from microorganisms associated with a skin of the host vertebrate...*" Applicants submit that neither Bernier nor Braks, as currently understood, teach or suggest isolating enzymes from microorganisms.

Applicants respectfully submit that, thus, the rejection of at least independent Claim 22 under 35 U.S.C. § 103(a) is improper and should be withdrawn along with the rejection of dependent Claims 23-27 and 29-40.

Applicants also submit that independent Claim 41 likewise contains language reciting, inter alia, "*...providing an artificial lipid based media that is not attractive to arthropods which are parasitic to a vertebrate host ... combining the artificial lipid based media and the enzymes...*"

For the reasons discussed above in relation to independent Claim 1, since Bernier requires a synergistic blend of a formula I compound and a group II compound and because neither Bernier nor Braks teach or suggest using an artificial lipid based media that is not attractive to arthropods which are parasitic to a vertebrate host in combination with enzymes, Applicants' independent Claim 41 has not been shown to be obvious in light of the cited prior art references. Furthermore, Applicants' independent Claim 41, as currently amended, also recites, "*...the enzymes being isolated from microorganisms associated with a skin of the host vertebrate...*" Applicants submit that neither Bernier nor Braks, as currently understood, teach or suggest isolating enzymes from microorganisms.

Applicants respectfully submit that, thus, the rejection of at least independent Claim 41 under 35 U.S.C. § 103(a) is improper and should be withdrawn along with the rejection of dependent Claim 42.

Independent Claims 43 and 46 recite, *inter alia*, "...providing a single lipid selected from the group consisting of glycerides, sterols, sterol esters, sterol phosphates, sterol precursors, wax, wax esters, wax alcohols, and wax aldehydes...".

Applicants respectfully submit that, as has been shown above in relation to independent Claim 1, Bernier absolutely requires a synergistic blend of a formula I compound and a group II compound. In contrast, these claims use only a single lipid chosen from a limited group as recited in the claims. As such, it would appear that Applicants' independent Claims 43 and 46 have not been shown to be obvious in light of the cited prior art references. Further, it appears that the Examiner has addressed the arguments presented by Applicants in respect to the patentability of these claims in the current office action, but that the Examiner has not properly examined the language as presented in the claims and given a proper evidentiary basis for their rejection. In order to aid the Examiner in construing the claim language, Claims 43 and 46 have been currently amended to make clearer the fact that it is a single lipid selected from the limited group. Additionally, Applicants' independent Claim 46, as currently amended, also recites, "...the enzymes being isolated from microorganisms associated with a skin of the host vertebrate..." Applicants submit that neither Bernier nor Braks, as currently understood, teach or suggest isolating enzymes from microorganisms.

As such, Applicants respectfully submit that the rejections of at least independent Claims 43 and 46 under 35 U.S.C. § 103(a) are improper and should be withdrawn along with the rejections of dependent Claims 44 and 47.

### ***Conclusion***

Applicants respectfully submit that each and every pending claim of the present invention meets the requirements for patentability under 35 U.S.C. §§ 112 and 103, and respectfully request that the Examiner indicate allowance of each and every pending claim of the present invention.

In view of the foregoing, it is submitted that none of the references of record, either taken alone or in any proper combination thereof, anticipate or render obvious Applicants' invention as recited in each of Claims 1-6, 8-27, 29-44, 46, and 47. The applied references of

record have been discussed and distinguished, while significant claim features of the present invention have been pointed out.

Accordingly, reconsideration of the outstanding Office Action and allowance of the present application and all the claims therein are respectfully requested and now believed to be appropriate.

Additionally, per the telephone conversation with Examiner Susan Hanley on June 7, 2007, wherein allowable claim language was discussed, Applicants respectfully request that the Examiner contact Applicants' counsel at the number listed below prior to the issuance of the first Office Action if the Examiner has any questions or concerns about the allowability of the currently presented claims.

If any additional fee is required, please charge Deposit Account Number 19-4330.

Respectfully submitted,

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